## **CLAIMS**

## WHAT IS CLAIMED IS:

- 1. A method for cleaning a diesel particulate filter including the steps of:
  - a) flowing a fluid into an outlet of a diesel particulate filter;
  - b) dislodging ash from the filter with the fluid; and
  - c) carrying the ash in the fluid through an inlet of the filter.
- 2. The method of claim 1 further including the step of sending acoustic waves through the fluid to assist in dislodging ash in said step b).
- 3. The method of claim 2 wherein the acoustic waves are ultrasonic waves.
- 4. The method of claim 3 wherein the fluid is a liquid.
- 5. The method of claim 4 wherein the fluid is water.
- 6. The method of claim 1 further including the step of filtering the fluid after it flows out of the inlet of the filter to remove the ash from the fluid.

7. The method of claim 1 further including the step of securing a first conduit to the outlet of the filter and a second conduit to the inlet of the filter prior to said step a).

- 8. A system for cleaning a diesel particulate filter comprising:
  - a supply of a fluid;
  - a first conduit for connecting to an outlet of a diesel particulate filter to the supply of the fluid; and
  - a pump for flowing the fluid into the outlet of the diesel particulate filter.
- 9. The system of claim 8 further including an acoustic wave source coupled to the fluid in the diesel particulate filter.
- 10. The system of claim 9 wherein the acoustic wave source is an ultrasound generator.
- 11. The system of claim 8 further including a filter for removing ash from the fluid after the fluid exits an inlet of the diesel particulate filter.

- 12. A method for cleaning a diesel particulate filter including the steps of:
  - a) flowing a fluid into a diesel particulate filter;
  - b) imparting an acoustic wave on the fluid in the diesel particulate filter to dislodge ash from the filter with the fluid; and
  - c) flowing the ash and the fluid out of the filter.
- 13. The method of claim 12 wherein the fluid is a liquid.
- 14. The method of claim 12 wherein the fluid is water.
- 15. The method of claim 12 wherein the acoustic wave is an ultrasonic wave.
- 16. The method of claim 12 wherein said step a) further includes the step of flowing the fluid into an outlet of the diesel particulate filter and wherein said step c) further includes the step of flowing the ash and the fluid out of an inlet of the diesel particulate filter.
- 17. The method of claim 16 further including the steps of filtering the fluid after it exits the diesel particulate filter and returning the filtered fluid to the filter.